

# **Potentiometric Surface Map of the Unconsolidated Aquifers of Johnson County, Indiana**

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Johnson County, Indiana is located in the central portion of the state and is situated within two major drainage basins; the White and West Fork White River Basin to the west and the East Fork White River Basin to the east.

The generalized potentiometric surface map (PSM) contour elevations represent lines of equal elevation relative to the measured groundwater levels in wells. Static water level measurements in individual wells used to construct the potentiometric surface map are indicative of the water level at the time of well completion. Therefore, current site specific conditions may differ due to local or seasonal variations in measured static water levels.

Coordinate locations of water well records were physically obtained in the field, determined through address geocoding, or reported on water well records. Elevation data were either obtained from topographic maps or a digital elevation model (DEM). Elevation and location quality control/quality assurance procedures were utilized to refine or remove data where errors were readily apparent.

In Johnson County well depths 100 feet or less were a priority in mapping the potentiometric surface. However, portions of western and southern Johnson County are lacking in data and/or are covered by deposits that have limited to non-existent aquifer potential. Therefore, potentiometric surface elevations contours have not been extended through these areas. There are approximately 1,747 unconsolidated water well records in the county within the priority depth range with approximately 925 (53%) of these wells located.

Potentiometric surface elevations range from a high of 800 feet mean sea level (msl) in the east-central and north-central region of the county near the basin divide, to lows of 640 feet msl in the northwest and 650 feet msl in the southeast part of the county. Generalized groundwater flow direction for Johnson County is towards major drainage relevant to the basin. Therefore, in the White and West Fork White River Basin, groundwater flow is west towards the White River, and to the east-southeast towards Sugar Creek and the Big Blue River for the East Fork White River Basin.